

## Beat the Heat – Avoiding Heat-related Illness

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As we get further into the hot, humid Missouri summer, temperatures in the 90s and humidity can easily lead to heat exhaustion or heat stroke.

Heat-related illnesses occur when the body's temperature control system becomes overloaded. The body normally cools itself by sweating. But when the humidity is high, sweat does not evaporate as quickly, and the body releases heat more slowly. This can cause the body temperature to rise, and can damage the brain, hurt other vital organs or even cause death.

In addition to humidity, other conditions can limit the body's ability to regulate temperature, including old age, obesity, infection or fever, diarrhea or dehydration, certain medications, heart disease, poor circulation, diabetes, sunburn and drug or alcohol use.

Anyone can suffer from heat related illness, but very young children, senior adults and the chronically ill are at greater risk. They perspire less, are more likely to have health problems and may be taking medications that make them more sensitive to heat or hinder their body's response to heat.

Heat-related illness usually comes in stages.

- **Heat cramps** – painful muscle cramps and spasms, usually in the stomach or legs, likely caused by loss of water and salt from heavy sweating.
- **Heat syncope** – fainting, occurs when the body tries to reduce heat loss. The skin blood vessels dilate so much that blood flow to the brain is reduced and causes faintness, dizziness, headache, increased pulse rate, restlessness, nausea, vomiting, and possibly even a brief loss of consciousness.
- **Heat exhaustion** – typically develops when people exercise or work in a warm, humid environment and lose body fluids through heavy sweating. This causes a slow down in blood flow to vital organs, causing a form of shock. Symptoms include cool, moist, pale, flushed or red skin; heavy sweating; headache; nausea; vomiting; dizziness; weakness and exhaustion. The body temperature will stay near normal. Heat exhaustion may be severe enough to require a person to stay in the hospital.
- **Heat stroke** – the most serious heat-related illness; a medical emergency. It is marked by a body temperature that quickly rises to 105°F or higher and may include symptoms like vomiting; rapid, weak pulse; rapid, shallow breathing; disorientation; delirium and coma. Heat stroke can lead to brain damage and death if the body is not cooled quickly. It can turn life threatening within minutes.

For heat cramps or heat exhaustion move the person to a cooler place and have him rest in a comfortable position. If he is fully awake and alert, give him small sips of cool water to drink. Do not give liquids with alcohol or caffeine in them, as they can make conditions worse. Take off or

loosen any tight clothing and place cool, wet cloths on his skin. Gently stretch cramped muscles for 20 seconds, then massage it; repeat if necessary. Call 9-1-1 if the person refuses to drink water, vomits or loses consciousness.

**For heat stroke call 9-1-1 immediately.** This is a life-threatening condition. Move the person to a cooler place and quickly cool his body by wrapping wet cloths around him. If you have ice packs or cold packs, wrap them in a cloth and place them on the victim's wrists and ankles, in the armpits and on the neck to cool the large blood vessels. Do not use rubbing alcohol, because it closes the skin's pores and prevents heat loss. Watch for signs of breathing trouble and make sure his airway is clear. Keep him lying down until help arrives.

To protect yourself from heat-related illness:

- **Dress light.** Wear lightweight, light-colored clothing. Light colors reflect away the sun's heat. You may also consider wearing a hat or using an umbrella.
- **Drink water.** Carry water with you and drink all day, even when you are not thirsty. Do not drink alcohol or caffeine, which dehydrate your body.
- **Eat frequent small meals.** Avoid high-protein foods.
- **Avoid salt tablets** unless your health care provider instructs you to take them.
- **Slow down.** Avoid strenuous activity, or do it during early morning, the coolest part of the day.
- **Stay indoors** when possible.
- **Take breaks.** When working or playing hard outside, take time out to find a cool place and rest for a few minutes.

The Missouri Department of Health and Senior Services (DHSS) will issue a statewide Hot Weather Health Advisory when a heat index of 105°F is first reached or predicted in a large proportion of the state. DHSS will issue a statewide Hot Weather Health Warning when the afternoon heat index has been at least 105°F for two days and when weather forecasts call for continued high-stress conditions for at least 48 hours over a large part of the state.

The National Weather Service also monitors weather conditions and the heat index. The heat index tells how hot it really feels outside based on the temperature and the humidity. For example, with an outside temperature of 90°F, the heat index may be 105°F.

The best way to beat the heat is to spend time in an air-conditioned area. If you do not have air conditioning in your home, visit a shopping mall, the local public library or another air-conditioned facility. Fans may help draw cool air into your house during the night, but they can actually work against you during the heat of the day. When the air temperature rises to about 100°F, the fan actually blows overheated air on you, adding heat to your body, instead of cooling it.

For more information on heat-related illnesses, contact the Springfield-Greene County Health Department at (417) 864-1658.